

CLAIMS

What is claimed is:

1. A power supply system for supplying power to a main unit comprising:

5 a power supply apparatus connected to a commercial power supply for supplying power to said main unit;

a battery for supplying power to the main unit, and

a controller ,

10 wherein said controller executes an operation of power consumption control means for the main unit started upon power consumption in said main unit exceeding said predetermined value.

2. The power supply system according to Claim 1 wherein said predetermined value is equivalent to a maximum output power of said power supply apparatus.

3. The power supply system according to Claim 1, wherein said controller executes said control means upon recognition of discharge performed from said battery.

15 4. The power supply system according to Claim 3, wherein said discharge is recognized from a discharge current value sent from a CPU of said battery.

5. The power supply system according to Claim 1, wherein said controller recognizes an output current value or an output voltage value from said power supply apparatus and has said operation of power consumption control executed.

20 6. The power supply system according to Claim 1, further comprising a variation controlling unit for controlling variation of the voltage supplied to a predetermined

part of said main unit.

7. A computer apparatus, comprising:

a system unit having a CPU for performing data processing;

5 a power supply apparatus connected to a commercial power supply for supplying power to said system unit;

an intelligent battery for supplying power to said system unit in a state where power consumption in said system unit exceeds a predetermined value; and
a controller having a function of communication with said intelligent battery and also having power management in said system unit executed, in a state of connecting with said power supply apparatus, based on information on discharge acquired from said intelligent battery.

8. The computer apparatus according to Claim 7,

wherein the power management executed by said controller slows down operating speed of said CPU, and

15 said controller exerts control so as to restore the operating speed of said CPU after elapse of a predetermined time from the slowdown of the speed.

9. The computer apparatus according to Claim 7, further comprising a DC/DC converter for correcting variation of voltage arising when the output voltage from said power supply apparatus droops and is balanced by battery voltage of said intelligent battery.

20 10. A computer apparatus, comprising:

a system unit for performing data processing;

a power supply apparatus connected to a commercial power supply for supplying power to said system unit;

an intelligent battery for supplying power to said system unit in the case where power consumption in said system unit exceeds a predetermined value;

5 a voltage measurement circuit for detecting that the output voltage from said power supply apparatus is lower than a predetermined voltage threshold; and

a controller for having operation of power consumption reduction in said system unit executed based on output from said voltage measurement circuit.

10 11. The computer apparatus according to Claim 10, further comprising a current measurement circuit for measuring an output current from said power supply apparatus,

wherein, on detecting that the output current from said power supply apparatus is lower than a predetermined current threshold by using said current measurement circuit, said controller makes said system unit stop said operation of power consumption reduction and restore the previous operation.

15 12. A maximum power control method in the case where maximum output power from a power supply apparatus connected to a commercial power supply is smaller than maximum power consumption of a system unit for performing data processing,

20 wherein power is supplied from said power supply apparatus to said system unit; power is supplied from a battery to the system unit in a state where power consumption in said main unit exceeds a predetermined value; and

operation of power consumption reduction for said system unit is started after the power consumption of said system unit exceeds said predetermined value.

13. The maximum power control method according to Claim 12,

wherein a characteristic that output voltage from the power supply apparatus droops when the power consumption of said system unit exceeds the maximum output power from said power supply apparatus is caught and execution of the operation of power consumption reduction for said system unit is started.

5 14. The maximum power control method according to Claim 12,

wherein, on shifting from supply of power by said power supply apparatus to supply of power by said battery, variation of input voltage supplied to an inverter of a liquid crystal display provided to said system unit is corrected.

10 15. The maximum power control method according to Claim 12,

wherein said operation of power consumption reduction slows down operating speed of the CPU performing data processing in said system unit.

15 16. The maximum power control method according to Claim 15,

wherein the operating speed of said CPU is restored to the previous operating speed after the elapse of a predetermined time from the execution of said operation of power consumption reduction.

20 17. A maximum power control method in the case where maximum output power from a power supply apparatus connected to a commercial power supply is smaller than maximum power consumption of a system unit for performing data processing,

wherein power is supplied from said power supply apparatus to said system unit;

power is supplied from a battery to the system unit in the case where power consumption in said system unit exceeds a predetermined value; and
execution of operation of power consumption reduction for said system unit is started
5 by recognizing a discharge current from said battery.

18. The maximum power control method according to Claim 17,

wherein recognition of said discharge current is to measure the current discharged from the battery inside or outside a battery pack constituting said battery.